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ABSTRACT

This paper examines the diverse group of students in the Ronald E. McNair Postbaccalaureate Achievement Program at the New Brunswick/Piscataway campuses of Rutgers, the State University of New Jersey. This program identifies, recruits, prepares, and assists academically talented, first-generation, low-income, and traditionally underrepresented minority college students (sophomores, juniors, or seniors) and encourages them to enter programs that lead to doctoral degrees. Students are given intensive preparation for graduate school, including mentoring relationships with outstanding faculty, long-term research internships, continuous advisement, preparation for the Graduate Record Examination, acclimation to graduate school life and the academic department environment, and assistance with graduate school admissions. Four program goals are noted: improving academic performance, providing opportunities for research and scholarship, improving the likelihood of admission to graduate school, and preparing students for success in graduate/doctoral programs. The report finds that the program has been extraordinarily successful: of the first cohort of 16 students graduating in May 1993, 14 were admitted to graduate school. In the second cohort, which graduated in May 1994, 10 of 11 graduates were admitted to graduate school. Mentor and research internship assignments are appended. (SM)

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Taking the First Steps Toward Graduate Education:
A REPORT ON THE RONALD E. McNAIR
POSTBACCALAUREATE ACHIEVEMENT PROGRAM

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Rutgers, The State University of New Jersey

October 1994

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The Ronald E. McNair Postbaccalaureate Achievement Program
Graduate School of Education
Rutgers, The State University of New Jersey

Dr. Earl Vann Farrow
Director

Dr. Muriel Grimmett
Associate Director

The program is supported by funds from:

United States Department of Education
New Jersey Educational Opportunity Fund
Rutgers, The State University of New Jersey

SUMMARY

A Problem....

Academic talent alone will not ensure that a successful undergraduate will gain admission to graduate school. This is particularly true for first-generation, low-income, traditionally underrepresented minority students. They need training and mentoring to cope with and adapt to the distinct graduate culture as well as the academic requirements of graduate school. Without this preparation, many individuals cannot reach the academic heights of which they are capable. The result is well-known: Far too few men and women from traditionally underrepresented groups earn doctoral degrees. Society suffers a loss as well when bright and motivated individuals from diverse backgrounds do not enter graduate school.

And a Solution....

The problem is being addressed on the New Brunswick / Piscataway campuses of Rutgers, The State University of New Jersey, through a program that provides selected undergraduates with intensive preparation for graduate school. The Ronald E. McNair Postbaccalaureate Achievement Program offers mentoring relationships with outstanding and dedicated faculty, long-term research internships, continuous advisement, preparation for the Graduate Record Examination, acclimation to graduate school life and the academic department environment, and assistance with graduate school admissions.

Founded in 1990-91, the McNair Program at Rutgers witnessed its first cohort of scholars graduate in May 1993. Of the sixteen students, fourteen, or 88 percent, were admitted to graduate school. They are now enrolled in graduate studies at Duke, Princeton, Rutgers, Tulane, Vanderbilt, and the state universities of Georgia, Iowa, Michigan, New York, and Pennsylvania. One other student has decided to take a sixth year of undergraduate study at Rutgers. Only one student of the original sixteen did not apply to graduate school. The second cohort of McNair Scholars graduated in May 1994. Of the twelve students, eleven applied to graduate school and one decided to remain at Rutgers for a fifth year. Ten of the eleven graduates, or 91 percent of the total cohort, were admitted to graduate school. Nine graduates, or 82 percent, will enroll in graduate school in the fall 1994, and one student who was accepted to graduate school has opted to defer admission for a year.

As these statistics and the following report show, the McNair Scholars Program clearly helps gifted students soar to greater heights. The success of the program has been extraordinary.

A REPORT ON THE RONALD E. McNAIR POSTBACCALAUREATE ACHIEVEMENT PROGRAM

BACKGROUND AND PURPOSE

Significant numbers of Rutgers' low-income, first-generation-college, and minority undergraduates are academically talented, and, with the appropriate preparation and nurturing, they have the potential to enter and succeed in graduate education. Most of the students in this pool, however, are not aware that graduate education is a viable option for them, nor are they fully prepared to enter the graduate admissions pipeline. In addition, these students need to develop and strengthen the academic research skills required to be strong candidates for admission to graduate school and successful graduate students once they are enrolled.

The purpose of the Ronald E. McNair Postbaccalaureate Achievement Program is to identify, recruit, prepare, and assist academically talented first-generation, low-income, and traditionally underrepresented minority college students, who are sophomores, juniors, or seniors to enter graduate programs which lead to doctoral degrees. The project addresses the problem that too few undergraduates from these groups go on to earn doctorates. The program focuses on providing intensive preparation for graduate school.

The project receives much of its funding from the federal Ronald E. McNair Postbaccalaureate Achievement Program, administered by the U.S. Department of Education. The program honors the memory of astronaut Ronald E. McNair, a mission specialist who died in the explosion of the Challenger space shuttle in 1986. Dr. McNair was a graduate of North Carolina A&T State University and earned a Ph.D. in physics from MIT in 1976.

Rutgers, The State University of New Jersey, is one of 68 institutions nationwide that administer a McNair program on campus. Rutgers has a strong commitment to educating first-generation-college and minority youth and ranks as one of the country's top institutions in the successful recruitment, admission, and graduation of minority students. The University is committed to increasing its enrollment of minority graduate students as well. Rutgers faculty, moreover, have demonstrated a commitment to serving low-income, first-generation, and minority students. The McNair Scholars Program has been able to capitalize on this interest and has built a cadre of key faculty who work closely with the project. Program staff have also marshaled interest among the University's academic and student services departments in advancing the purposes and objectives of the McNair program.

CHARACTERISTICS OF THE TARGET GROUP

The students the project seeks to identify, recruit, and enroll have a number of characteristics in common. They are:

1. Lack of family members or friends who are knowledgeable about graduate education and provide support and encouragement to pursue graduate study as an option.
2. Indebtedness resulting from loans to finance undergraduate education.
3. Limited knowledge of the various graduate-level careers related to their major field of study and tendency to view law, medicine, and other professions as the only viable postbaccalaureate options.
4. Lack of access to and close contact with faculty and other staff who are working on research in their major field of undergraduate study.
5. Lack of exposure to the culture of academic departments and the research community.
6. Lack of basic library, laboratory, and analytical/quantitative research skills.
7. Lack of training in understanding and utilizing computer technology in the research process.
8. Limited academic advisement focused on graduate school.
9. Lack of knowledge about the graduate school application process.
10. Lack of knowledge about the "culture" of graduate school life.
11. Limited financial resources and lack of knowledge about financial aid for graduate education.

PILOT PROGRAM

In 1990, Rutgers obtained a grant to operate a one-year program to prepare women and minority students to enter graduate school. The program focused on first-generation-college and low-income undergraduates. Participants were recruited near the end of their junior year and spent eight weeks in summer 1990 -- between their junior and senior years -- working with faculty mentors on supervised research projects. An evaluation of mentor experiences revealed that the students lacked a sufficient understanding of the (1) basic research methods, (2) bibliographic research techniques, and (3) computer technology needed to participate fully in the program's research internship experience and to succeed in graduate education. Being bright simply was not

enough. It was clear to faculty and program planners that a one-year program that included a single summer phase was inadequate preparation time for first-generation, low-income, and traditionally underrepresented students. As a result, additional time and activities to address these needs were designed and built into the McNair Program.

DIVERSITY OF McNAIR SCHOLARS

Table 1, a diversity table, contains 1990 to 1994 data on the McNair Scholars' race, sex, and academic major by cohort. The total enrollment of the program was 74 percent female and 26 percent male. The racial/ ethnic composition of all cohorts combined was 42 percent Black, 18 percent Puerto Rican, 30 percent Other Hispanic, and 9 percent White.

The 57 students who participated in the program represent 16 major fields of study. The largest cluster of students was in Psychology--35 percent of the total enrollment. Sixteen percent of the participants were Political Science majors and 12 percent were in English. Ethnic Studies, History, and Communications each accounted for 7 percent of the students, and another 7 percent majored in either Engineering, Mathematics, or Science. The remaining 9 percent of the students were enrolled in Administration of Justice, Journalism, Spanish, and Sociology.

Most McNair Scholars were social science and humanities majors, and, in fact, the program's courses, seminars, workshops, faculty linkages, and other activities are structured to primarily serve students in these two broad areas. This approach is not only cost-effective but also educationally sound. Prior experience has demonstrated that postbaccalaureate preparation in many of the sciences would require very different programming which is too costly to justify and too difficult to manage. In addition, Rutgers has numerous programs and opportunities available in the sciences, designed specifically for academically talented low-income and traditionally underrepresented students.

Table 1

McNair Program Diversity Table 1990 to 1994										
	1990-91 Cohort		1991-92 Cohort		1992-93 Cohort		1993-94 Cohort		Total Program All Cohorts Combined	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	Number	Percent
Asian	0	0.0	0	0.0	0	0.0	1	7.2	1	1.8
Female	0	0.0	0	0.0	0	0.0	1	7.2	1	1.8
Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Black	8	50.0	5	41.7	6	40.0	5	35.7	24	42.1
Female	5	31.2	4	33.3	2	13.3	4	28.5	15	26.3
Male	3	18.8	1	8.3	4	26.7	1	7.2	9	15.8
Other Hispanic	6	37.5	4	33.3	3	20.0	4	28.5	17	29.8
Female	4	25.0	3	25.0	2	13.3	4	28.5	13	22.9
Male	2	12.5	1	8.3	1	6.7	0	0.0	4	7.0
Puerto Rican	1	6.3	2	16.7	4	26.7	3	21.4	10	17.5
Female	1	6.3	1	8.3	4	26.7	3	21.4	9	15.7
Male	0	0.0	1	8.3	0	0.0	0	0.0	1	1.8
White	1	6.3	1	8.3	2	13.3	1	7.2	5	8.8
Female	0	0.0	1	8.3	2	13.3	1	7.2	4	7.0
Male	1	6.3	0	0.0	0	0.0	0	0.0	1	1.8
Total Female	10	62.5	9	75.0	10	66.7	13	92.8	42	73.7
Total Male	6	37.5	3	25.0	4	33.3	1	7.2	15	26.3
Grand Total	16	100.0	12	100.0	15	100.0	14	100.0	57	100.0

Academic Majors of McNair Participants								
1990-91 Cohort								
Africa Stud	Math	Psychology	Political Sci	History	Spanish	Physics	Journalism	TOTAL
1	1	6	3	2	1	1	1	16
1991-92 Cohort								
English	Psychology	Political Sci	History	Biology	Sociology	Communications		TOTAL
3	4	1	1	1	1	1		12
1992-93 Cohort								
Elec Eng	English	Psychology	Political Sci	Communications	Afr Stud	Latin Stud	PRican Stud	TOTAL
1	2	5	1	2	2	1	1	15
1993-94 Cohort								
Adm Justice	English	Hist/Poli Sci	Journ & Mass Media	Political Sci	Psychology	Spanish	TOTAL	
1	2	1	1	3	5	1	14	

RECRUITMENT AND SELECTION

In order for students to gain admission and be successful in graduate education, they must be academically talented and part of the relatively small proportion of college undergraduates who rank at the top of their classes. The McNair Scholars Program is not for students whose performance in college courses is average or sporadically good. McNair participants need to be well-above-average to superior students who are committed to scholarship and interested in graduate study. They must demonstrate that academic achievement and excellence are important to them, that they are willing to commit themselves to long-term scholarly activity, that they can develop positive relationships with faculty and other university and program staff, and that they are willing to commit themselves to the two-year McNair program cycle.

Students enter the program in their sophomore year and remain until graduation from undergraduate school. To date, four cohorts of students -- (1) sixteen students in 1990-91, (2) twelve students in 1991-92, (3) fifteen students in 1992-93, and (4) fourteen students in 1993-94 have been recruited and selected through the program's standard four-step process.

The first step in the process consists of a review and analysis of the student databases of Rutgers' Student Support Services (SSS) and the New Jersey Economic Opportunity Fund Program (EOF) by McNair staff in collaboration with SSS and EOF staff. The objective is to identify students who meet TRIO eligibility criteria, have a grade point average of 3.0 or better, and have the potential to succeed in graduate study. Additional candidates are recommended for screening by McNair mentors and other University faculty.

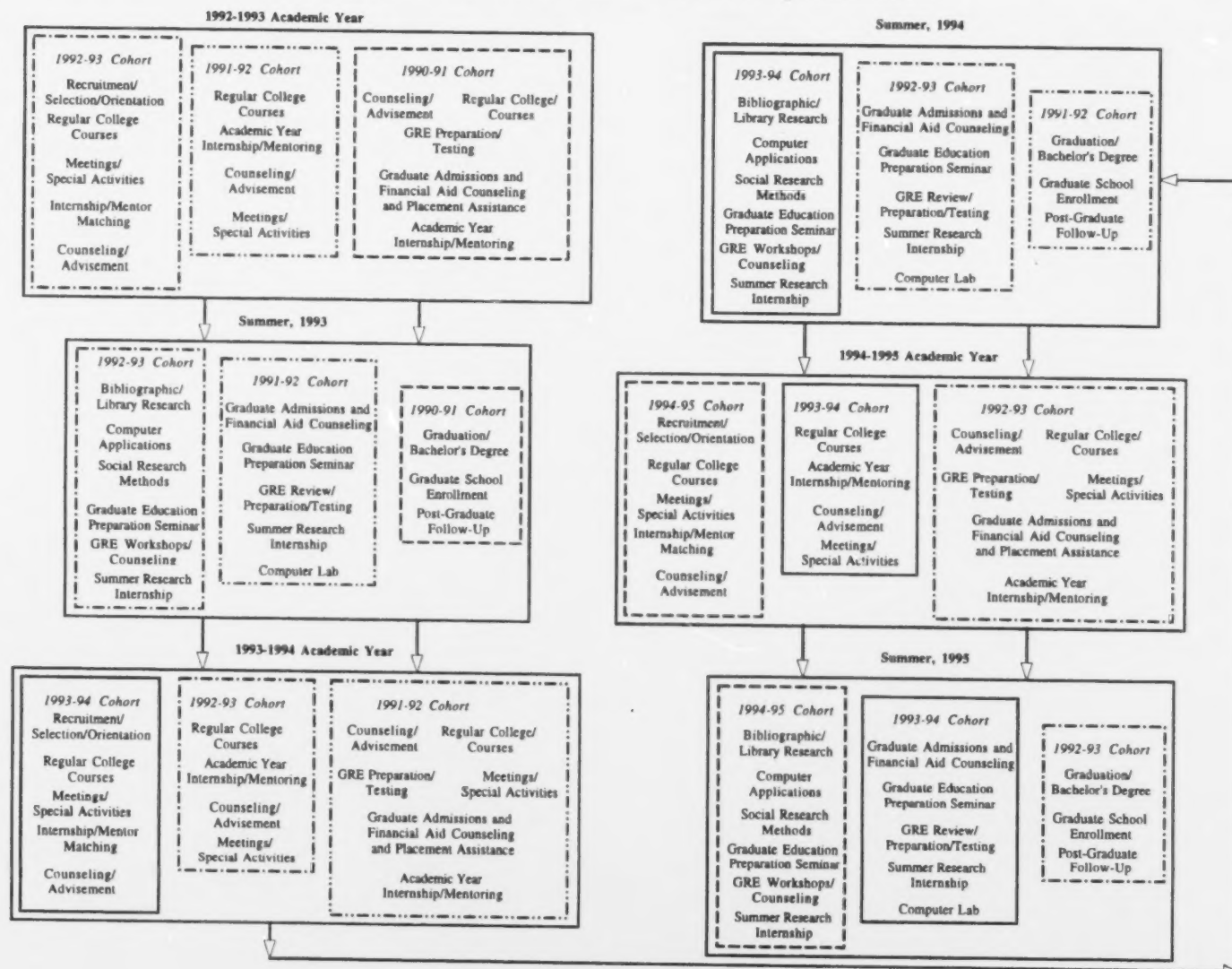
In the second step, the candidates in the pool are sent brochures and other program information and are invited to an initial informational session where they receive application packets. Invited candidates who cannot attend the orientation meeting are mailed application materials and receive follow-up telephone contacts from program staff. A series of informational/orientation meetings is held to enable candidates to learn more about the program.

During step three, candidates work on completing the McNair program application. During this period, candidates have frequent telephone and in-person contacts with program staff, who talk with them about graduate education, respond to their questions about the program, and guide them through the application process. The McNair program application includes sections requesting information on general demographic and background indicators, family background, family income and undergraduate financial aid, college major, and courses studied. The application also includes formal faculty recommendations and requires students to write a personal essay.

During step four, candidates are screened for program eligibility criteria, a consistent level of academic performance, and an interest in entering graduate rather than professional education. Selected candidates who meet eligibility requirements, show the greatest promise, and want to join the program are interviewed by program staff. Students are selected and offered a place in the incoming cohort on a "rolling admissions" basis.

McNair Scholars remain in the program for two years, including summers. Figure 1 is a graphic illustration of the 1992-1995 program cycle with the activity of each entering cohort indicated.

Figure 1
Program Activities October 1992 to September 1995



PREPARING McNAIR SCHOLARS FOR GRADUATE EDUCATION

A variety of strategies and activities are used to accomplish the four major goals of the McNair Scholars Program. They are: (1) improving academic performance, (2) providing opportunities for research and other scholarly activity, (3) improving the likelihood of admission to graduate programs of choice, and (4) preparing students for success in graduate/doctoral studies. Many McNair program activities will be mentioned in more than one of these categories. The repetition is essential; the program was designed as an integrated services preparation model, which assumes that program activities are neither mutually exclusive nor linked only to a single desired outcome.

GOAL: IMPROVING ACADEMIC PERFORMANCE

Maintaining a high grade point average (GPA) is essential for students who want to enter graduate school. The program tries to recruit students who demonstrate they can perform in the 3.0 or better GPA range. The program activities used to maintain or improve academic performance are:

1. Monitoring Participants' Academic Performance -- Frequent meetings with students, the review of transcripts and grade reports each semester, and selected faculty contacts are used to monitor the academic performance of McNair Scholars. Faculty mentors stay informed of students' performance and progress at the department level and are in frequent communication with McNair program staff.
2. Providing Academic Counseling and Facilitating Appropriate Academic Advisement for Participants -- Project staff review participants' course selection each semester and work collaboratively with participants' academic advisers and faculty mentors to insure that each student takes the appropriate courses and number of credits. In many instances, a participant's official adviser is also the assigned faculty mentor, which makes communication and activity on the student's behalf easier to facilitate.
3. Tutoring for Participants Who Are Having Difficulty or Wish to Earn a Higher Course Grade -- Tutoring is available and is utilized on an as-needed basis. To date, few McNairs have required the intervention of a tutor because their course work was too

difficult. Traditionally, college students dislike the practice of seeking a tutor to get a higher grade in a course they are passing successfully, however, more McNair participants are beginning to take advantage of this option to strengthen their course performance and improve their GPA.

4. Strengthening Participants' Academic Skills Through Special Courses -- The courses McNair Scholars take during their first summer are designed to provide the knowledge and skills that faculty consider essential for meaningful participation in the research internship. The courses were designed to have interdisciplinary linkages, i.e., course content and instruction are coordinated so that what participants learn in one course is relevant to what they are expected to learn in other courses. The McNair summer courses are described below.

- (a) "Utilizing the Computer as a Tool for Learning." Prior to enrollment in the program, perhaps two of forty-two McNair Scholars were able to use a computer efficiently and go beyond producing simple, poorly formatted writing assignments. The program's summer course in computer instruction provides advanced computer-word-processing, database, and spreadsheet skills that enable participants to achieve or maintain higher standing in many of their regular courses. McNair Scholars also become familiar with simulations and learn to use data analysis software applications that are unique to their discipline.

- (b) "Bibliographic Research Techniques." Participants benefit almost immediately from this summer course, applying their newly learned skills and knowledge of library research to their course work the following semester. They learn to use the new technology associated with bibliographic research, perform computer searches, and become familiar with the INTERNET system. Participants say the course enables them to conceive, develop, and write stronger research papers for their undergraduate courses.

- (c) "Introduction to Social Research." After the initial pilot program in 1990, faculty mentor/research supervisors requested that all participants complete a course of study to learn enough research basics to participate meaningfully in the research internship experience. Program staff and faculty

subsequently designed this summer course, which emphasizes the scientific method and strengthens participants' critical thinking, analytical, and problem-solving skills. Participants say the course enables them to read and understand research reports and articles associated with their regular courses at a higher level of mastery than most other students in their classes. As a result of the interdisciplinary linkage with the computer applications course, participants learn to use data analysis software such as SPSS and SAS.

5. Access to Computers -- Graduate students need to know how to use computer technology and applications as tools for learning prior to entering graduate school. The McNair program has a small number of desktop computers for participants' use, which are located on the same floor where the program is housed. The McNair computers are in constant use by participants.

GOAL: PROVIDING OPPORTUNITIES FOR RESEARCH AND OTHER SCHOLARLY ACTIVITY

Participants have the opportunity to engage in research and other scholarly activity through (1) McNair summer and academic year research internships, (2) University-sponsored departmental and special honors research programs, and (3) participation in academic symposiums and conferences with faculty mentors and McNair program staff.

1. Summer and Academic Year Research Internships -- McNair Scholars engage in extensive and intensive research activity through their internships. During the two years they are in the program, the scholars engage in (a) forty hours of internship preparation, orientation, and initial activity during the summer after their sophomore year (five hours per week for eight weeks); (b) ten hours per week assigned internship activity during their junior year, (c) a full-time internship the summer after their junior year, and (d) another ten hours per week assigned internship during their senior year. Participants also complete a major research paper during their senior year based on their internship. Appendix A lists the research internships in which McNair Scholars and their faculty mentors have participated.
2. University-Sponsored Departmental and Special Honors Research Programs -- Some McNair participants are selected for departmental honors programs and special

University honors such as the Henry Rutgers, Mabel Smith Douglass, and Paul Robeson programs, all of which have a research requirement. Since McNair seniors are required to complete a research paper based on their work with faculty mentors, the McNair project also meets the requirements of the special honors programs. Twelve McNair scholars have participated in University honors research.

3. Participation in Academic Symposiums and Conferences with Faculty Mentors and McNair Program Staff -- McNair Scholars have participated in conferences and professional meetings, but the number of students and level of their participation in these activities have been limited by the amount of available funds. The events and number of McNair participants involved are listed below:

November 1992	McNair National Student Conference, Fontana, Wisconsin. Eight McNair participants.
March 1993	Society for Research in Child Development, New Orleans, Louisiana. Two McNair participants and their faculty mentors.
April 1993	Eastern Psychological Association, Washington, D.C. Two McNair participants and their faculty mentors.
April 1993	Annual McNair Program Reception/Banquet, New Brunswick, New Jersey. Presentation of Graduating Seniors' McNair Research Projects. Sixty-eight McNair participants, mentors, and guests present. Thirteen McNair senior presentations.
October 1993	Graduate Record Examination Forum, Adams Mark Hotel, Philadelphia, Pennsylvania. Fourteen McNair participants.
November 1993	Second Annual McNair Students' Conference, Delavan, Wisconsin. Eight McNair participants.

April 1994

Annual McNair Program/Banquet, New Brunswick, New Jersey. Presentation of Graduating Seniors' McNair Research Projects. Seventy-six McNair participants, mentors, and guests present. Twelve McNair senior presentations.

August 1994

The American Society of Parasitologists' Conference, Colorado State University, Fort Collins, Colorado. One McNair participant.

**GOAL: IMPROVING THE LIKELIHOOD OF ADMISSION
TO GRADUATE PROGRAMS OF CHOICE**

The program provides a comprehensive array of activities to (1) familiarize students with the graduate school admissions and financial aid process, (2) facilitate participant advisement about the identification and selection of appropriate graduate programs and schools, (3) provide graduate education preparation seminars and workshops, including Graduate Record Examination preparation, (4) assist participants to complete the admissions and financial aid application process, and (5) monitor participant progress through the graduate admissions and financial aid application process. The program activities designed to meet these needs are presented below.

1. In their initial summer in the program, McNair Scholars entering their junior year participate in an initial series of informational workshops, seminars, and meetings. These sessions, as well as follow-up sessions, are conducted by Rutgers' Office of Graduate Admissions, Office of Student Financial Aid, and Division of Career Services. Staff from these three University units use case examples to provide McNair Scholars with an understanding of the graduate admissions and financial aid process, the timelines, steps, and requirements of the admissions process, sources of financial aid, and resources and reference materials needed for the application process.

University Career Services and McNair program staff work with McNair participants during the academic year. Their task is to help participants identify suitable graduate programs and possible sources of financial aid, obtain applications to graduate school, and begin the process of completing the applications. Career Services and McNair staff

also use small group and individual meetings to help participants learn more about general and specific careers in their major field of study and focus their career interest.

2. McNair staff facilitate the advisement process to assist participants in the identification and selection of appropriate graduate programs, schools, and sources of financial aid.

The program creates an advisement/information loop for participants that includes (1) McNair staff, (2) the faculty mentor/adviser, and (3) the Office of Career Services. While their roles often overlap, McNair staff primarily work on ensuring that participants make full use of available faculty and University resources and focus participants' thinking about the important decisions they need to make. McNair and Career Services staff help participants identify graduate schools and sources of financial aid. Faculty mentors/research supervisors help participants identify appropriate graduate schools, often facilitating the admissions process by contacting colleagues at other universities.

3. Graduate Record Examination (GRE) Preparation Workshops and review activities are provided for participants.

McNair Scholars first receive GRE preparation during the initial eight-week summer program following their sophomore year. A beginning workshop series, taught by The Princeton Review and consisting of 24 hours of intense instruction, training, testing, individual performance analysis, and test performance counseling, is provided over the eight weeks. Follow-up and review sessions, also conducted by The Princeton Review, are conducted at key points over the subsequent twelve months. In addition, GRE practice software is installed on the McNair computers, so participants can work on strengthening their GRE performance. During the academic year, McNair staff use Princeton Review analyses of participants' strengths and weaknesses to encourage and guide their preparation for upcoming GRE testings. The McNair program pays GRE testing fees, and all participants are encouraged to take the GRE twice. The initial summer workshop has produced positive results among participants. The students' performance on workshop mini-subtests improves substantially over the eight weeks. As a result of the workshops, students score higher than they normally would on the first official GRE they take.

A Graduate Education Preparation Seminar is conducted during the summer program for participants who are entering their senior year. The instructor uses expert

University staff from offices such as Graduate Admissions, Financial Aid, and Career Services, and conducts group and individual sessions with participants, providing the opportunity to: (1) interact and discuss graduate school with actual graduate students, (2) develop a personal statement, (3) identify and work with faculty who will be providing references for graduate school applications, and (4) complete the applications they will submit to graduate schools.

4. McNair Staff provide direct assistance to participants in the completion of the graduate school and financial aid application process. Staff review applications as the participants work on them, provide advice and guidance about references and other supporting documentation, and approve completed application forms before they are mailed to graduate schools. McNair and Career Services staff help participants identify graduate schools and sources of financial aid. Staff also review participants' completed financial aid forms to insure they are error-free, and, when necessary, arrange for consultations between McNair seniors and University financial aid office staff. Both McNair staff and participants are aware that mistakes on financial aid forms can be costly and, on occasion, virtually impossible to correct.
5. McNair staff monitor participants' progress and performance and conduct intense monitoring of seniors during the graduate school and financial aid application process. All participants are given appointments to meet monthly with McNair staff. During the summer component, program staff have frequent contacts with instructors, faculty mentor/research supervisors, and participants in order to monitor student progress. McNair seniors meet more frequently with staff during the graduate school and financial aid application process--often as much as once or twice a week. While program staff work closely with McNair Scholars throughout the senior year, the period of most intense activity occurs from the summer before the senior year to the end of the fall semester.

GOAL: PREPARING STUDENTS FOR SUCCESS IN GRADUATE/DOCTORAL STUDIES

The program seeks to provide participants with: (1) knowledge and skills, (2) experiences, and (3) services that are known to be critical to success in graduate education. Of course, the entire McNair program is designed to prepare students for success in graduate studies at the doctoral

level. Preparation is the theme that underlies all program activity. The sequencing of activity for participants over the two-year program cycle is intended to ensure that McNair Scholars internalize the attitudes and behaviors that will be required of them in graduate school. These attitudes and behaviors, as well as the self-confidence it takes to compete in the graduate school environment, must be learned and acquired, and that takes time. First-generation-college, minority, and traditionally underrepresented students need considerable training and "seasoning" to cope with and adapt to the new culture and requirements of graduate school. The McNair program is an effort to provide participants with that essential training and "seasoning."

1. *The McNair program provides participants with the knowledge and skills needed to succeed in graduate studies.* The program activities that have the greatest impact on increasing McNair Scholars' knowledge and skills for success in graduate education are: (1) the three courses participants take during their first summer in the program -- Research Methods, Bibliographic Research, and Computer Applications, (2) the research internship, (3) the research project/report, (4) the graduate education preparation seminar, (5) Graduate Record Examination workshops, (6) regular contacts with McNair staff and McNair special events, (7) utilization of the computer lab, (8) counseling/advisement, and (9) faculty mentoring and exposure to the culture of the academic department.
2. *The McNair program provides participants with the experiences needed to succeed in graduate studies.* The program activities that have the greatest impact on providing participants with the experiences important to success in graduate school are: (1) the research internship, (2) the research project/report, (3) the graduate education preparation seminar, (4) regular contacts with McNair staff and McNair special events, (5) counseling/advisement, and (6) faculty mentoring and exposure to the culture of the academic department.
3. *The McNair program provides participants with the services needed to ensure they succeed in graduate studies.* The program features that have the greatest impact on providing participants with the services important to success in graduate school are: (1) a proven program design, (2) detailed planning and reflective management, (3) the quality of program staff, (4) excellent collaboration and cooperation among diverse

units and departments at Rutgers University, and (5) the availability of multiple funding sources to finance a comprehensive two-year program cycle.

ASSESSMENT OF STRATEGIES AND ACTIVITIES

The overall design of the McNair Scholars Program has proven successful. The combination of courses, workshops, mentoring, participant research, and McNair staff support has produced outstanding results, and program activities and services are constantly fine-tuned to reflect participant needs and changing conditions.

The least successful aspect of the program--and one over which McNair staff have no control--has been in obtaining sufficient financial aid awards for students admitted to graduate school. Three students in the May 1993 first cohort of graduates were accepted at graduate schools, but had to defer admission because the financial aid packages they were offered left considerable unmet need.

More recently, an attempt to broaden the pool of students recruited for the McNair program produced disappointing results. The intention was to determine the extent that academically talented, first-generation-college, minority, and traditionally underrepresented students who were also high-risk candidates for graduate education could benefit from McNair. It was a gamble; program staff hoped the odds were in the high-risk students' favor, and, once they were in the McNair program, the students would become good candidates for graduate school.

The non-academic criteria for selecting McNair participants were relaxed in 1992-93, and a significant number of students who were less mature, less personally secure, and less able to focus their thinking, attitudes, and behavior on scholarly goals were admitted to the program. Their academic performance met the McNair GPA criteria of 3.0 or better; it was these non-academic factors that made the group "high-risk." These students had unrealistic notions about their ability to make informed decisions. They also needed more intense academic and personal counseling. Unfortunately, the most intense efforts of McNair staff have not mitigated these students' problems. If this group continues to perform as they have for the past year, it is likely the 1992-93 cohort will fall short of the achievements of the 1990-91 and 1991-92 cohorts.

The program's experience with the 1992-93 cohort reinforced the wisdom of the original selection criteria. Graduate school is not for everyone, and there is a large investment of fiscal and human resources in each McNair participant. So it is critical that when selections for admission to McNair are made, the Scholars are chosen wisely.

PROJECT RESULTS

RESULTS: IMPROVING ACADEMIC PERFORMANCE

Most McNair participants maintain strong grade point averages. Table 2 lists the participants by cohort and recent cumulative grade point average (CGPA). The 1990-91 cohort graduated Rutgers in May 1993. Although two participants ended their undergraduate years with a final spring 1993 CGPA below 3.0, the cohort mean was 3.474. CGPA data for the 1991-92 cohort, which graduated Rutgers in May 1994, indicate that all of the participants in that cohort were above 3.0 and had a mean CGPA of 3.440. Spring semester 1994 data for the 1992-93 cohort revealed that two students had a CGPA below 3.0 and the cohort had a mean CGPA of 3.283. CGPA data for the most recent group of students to enter the program, the 1993-94 cohort, showed that two students had a CGPA below 3.0 and the mean CGPA for the group was 3.366.

It is important for participants to maintain a strong GPA. Program staff have observed that, over time, many participants--through hard work and perseverance--are able to increase their CGPAs toward the 3.5 level. They are the most attractive candidates in the eyes of graduate school admissions offices.

Table 2
Cumulative Grade Point Average of McNair Scholars

1990-91 Cohort Stud No.	Fall '91 CGPA	Spr '93 CGPA	Fall '93 CGPA	Spr '94 CGPA	1992-93 Cohort Stud No.	Fall '93 CGPA	Spr '94 CGPA
1		3.521 ^G			29	3.488	3.473
2		3.532 ^G			30	3.532	3.474
3		3.430 ^G			31	3.407	3.403
4		3.489 ^G			32	3.388	3.405
5		3.453 ^G			33	3.069	3.146
6		3.512 ^G			34	3.481	3.446 ^G
7		2.877 ^G			35	3.278	3.203
8		2.809 ^G			36	3.234	3.179
9		3.432 ^G			37	3.529	3.556
10		3.618 ^G			38	3.352	3.555
11		3.061	3.091	3.094	39	3.084	2.979
12	3.824 ^G				40	3.319	3.286
13		3.899 ^G			41	2.885	2.581
14		3.673 ^G			42	3.127	
15		3.696 ^G			43	3.445	3.437
16		3.752	3.752 ^G				
1991-92 Cohort					1993-94 Cohort		
17			3.855	3.869 ^G	44	3.536	3.605
18			3.603	3.639 ^G	45	3.235	3.253
19			3.114	3.102 ^G	46	3.155	3.198
20			3.252	3.264 ^G	47	3.397	3.284
21			3.809	3.828 ^G	48	2.832	2.832
22			3.369	3.383 ^G	49	3.293	3.295
23			3.123	3.098 ^G	50	3.595	3.589
24			3.599	3.194 ^G	51	3.455	3.385
25			3.687	3.170 ^G	52	3.707	3.758
26			3.341	3.364 ^G	53	3.275	3.295
27			3.518	3.549 ^G	54	3.725	3.752
28			3.814	3.820 ^G	55	3.435	3.485
					56	3.647	3.572
					57	2.793	2.821

KEY: ^G = Graduated

RESULTS: PROVIDING OPPORTUNITIES FOR RESEARCH AND OTHER SCHOLARLY ACTIVITY

1992-93 Research Internships. Twenty-five McNair Scholars participated in research internships during 1992-93. They included thirteen of fifteen seniors, or 87 percent of the 1990-91 cohort, and twelve juniors, or 100 percent of the 1991-92 cohort. McNair seniors (1990-91 cohort) completed their final year of research internships and developed reports on topics that included: (1) Race, Class, and Economic Development: A Case Study of Newark, New Jersey [Political Science], (2) Radial-Arm Maze Complexity and Duration of Negative Contrast [Psychology], (3) Analysis of Nonstandard Items on the New Jersey Basic Skills Test [Mathematics], and (4) A Comparative Analysis of Cuba Post 1959 to the Present. Juniors worked on topics such as: (1) Democracy and the Judicial Role [Political Science], (2) Agriculture and Development Planning on the Rural/Urban Fringe [Human Ecology], (3) The Differences in Characteristics of Child and Teacher Behavior in Cooperative School Periods [Education], and (4) Parasite Habitat Selection: Behavior in a Predictable Environment [Animal Science]. A complete listing of 1992-93 research internships is included in Appendix A.

1993-94 Research Internships. Twenty-six McNair Scholars participated in research internships during 1993-94. They included twelve 1994 graduating seniors, or 100 percent of the 1991-92 cohort, and fourteen juniors, or 100 percent of the 1992-93 cohort. The twelve McNair seniors completed their final year of research internships and developed reports on topics such as: (1) Differential Lipid Metabolism in Migratory Frugivorous Songbirds [Biological Sciences], (2) Public Perceptions of the Jury Selection Process [Sociology], (3) An Analysis of Three Contemporary African Artists [English], and (4) Computer Simulation and Analysis of the Forces and Stresses Which Exist in the Design and Fabrication of Robotic Limbs [Mechanical and Aerospace Engineering]. A complete listing of 1993-94 research internships is included in Appendix A.

RESULTS: IMPROVING THE LIKELIHOOD OF ADMISSION TO GRADUATE SCHOOL

The McNair Program at Rutgers witnessed its first cohort of scholars graduate in May 1993. Of the sixteen students, fourteen, or 88 percent, were admitted to graduate school. They are now enrolled in graduate studies at Duke, Princeton, Rutgers, Tulane, Vanderbilt, and the state universities of Georgia, Iowa, Michigan, New York, and Pennsylvania. One other student has

decided to take a sixth year of undergraduate study at Rutgers. Only one student of the original sixteen did not apply to graduate school. The second cohort of McNair Scholars graduated in May 1994. Of the twelve students in the original cohort, eleven applied to graduate school and one decided to remain at Rutgers for a fifth year. Ten of the eleven graduates, or 91 percent of the total cohort, were admitted to graduate school. Nine graduates, or 82 percent, will enroll in graduate school in the fall 1994, and one graduate who was accepted to graduate school has deferred admission for a year. Table 3 shows the September 1994 enrollment status of the 1990-91 and 1991-92 cohorts.

The universities McNair graduates are attending include:

Carnegie Melon University	Vanderbilt University
Columbia University	Widener University
Duke University	State University of New York at Albany
Fordham University	State University of New York at Buffalo
Hofstra University	University of Georgia
Michigan State University	University of Iowa
New York University	University of Michigan
Princeton University	University of North Carolina
Rutgers University	University of Pennsylvania
Tulane University	

Table 3
Graduate School Placements of Rutgers McNair Scholars

	1990-91 Cohort	1991-92 Cohort
Cohort Size	16 100.0%	12 100.0%
#/% Graduated College	15 93.7%	11 91.7
#/% Still Enrolled in College	1 6.3%	1 8.3%
#/% Graduated or Still Enrolled in College	16 100.0%	12 100.0%
#/% Graduates Applied to Graduate School	14 93.3%	11 100.0%
#/% Graduates Admitted to Graduate School	14 93.3%	10 90.9%
#/ Graduates Not Admitted to Graduate School	0	1 9.1%
#/% Graduates Deferred '94 Admission to Graduate School	0	1 9.1%
#/% Graduates Enrolled in Graduate School 9/94	14 93.3%	9 81.8%

RESULTS: PREPARING STUDENTS FOR SUCCESS IN GRADUATE/DOCTORAL STUDIES

The McNair program design emphasizes preparation. The research internship experience, which was previously discussed, prepares students for realistic roles in the research process. Faculty mentoring, experience within academic departments, and the Graduate Education Preparation Seminar prepare McNair Scholars for graduate school culture and life within academic departments. Appropriate advisement and support are designed to ensure that students take the appropriate courses and marshal their strongest efforts to achieve and maintain strong grade point averages.

Table 4 presents the GRE scores of the first three McNair cohorts and the latest published national GRE data, in the form of 1990-91 national means by race/ethnicity. McNair Scholars have consistently performed well on the GRE. Program staff and students alike are convinced that this performance has been significantly enhanced by the utilization of GRE workshops and the availability of GRE practice software on computers.

The mean scores on the verbal, math, and analytical sections of the GRE for Black McNair Scholars in all three cohorts are above the 1990-91 national means on those subtests for Blacks. The mean scores on the subtests for Hispanic McNair Scholars in all three cohorts are lower than the 1990-91 national means, but the scores for Puerto Ricans are significantly higher. The mean scores for White McNair Scholars are higher than the 1990-91 national means on some subtests and lower on others. The subtest scores for White McNair Scholars in the 1992-93 cohort are particularly low and indicate that a great deal of work will need to be done to boost them. Overall, however, the GRE scores for participants in general have been very positive.

Table 4
GRE Scores By McNair Cohort and 1990-91 National GRE Mean Scores

1990-91 McNair Cohort				1990-91 Mean GRE Scores--All Test Takers			
	Verbal	Math	Analytical		Verbal	Math	Analytical
Black	470	530	520	Black	395	404	411
Hispanic	459	504	486	Hispanic	473	501	497
Puerto Rican	555	545	580	Puerto Rican	408	454	435
White	540	520	600	White	518	543	561
Cohort Mean	476	520.5	515.5	Cohort Mean	485	562	536

1991-92 McNair Cohort				1990-91 Mean GRE Scores--All Test Takers			
	Verbal	Math	Analytical		Verbal	Math	Analytical
Black	462	480	474	Black	395	404	411
Hispanic	460	560	572.5	Hispanic	473	501	497
Puerto Rican	610	600	580*	Puerto Rican	408	454	435
White	610	540	510*	White	518	543	561
Cohort Mean	476	520.5	515.5	Cohort Mean	485	562	536

1992-93 McNair Cohort*				1990-91 Mean GRE Scores--All Test Takers			
	Verbal	Math	Analytical		Verbal	Math	Analytical
Black	480	565	552.5	Black	395	404	411
Hispanic	445	380	485	Hispanic	473	501	497
Puerto Rican	575	540	615	Puerto Rican	408	454	435
White	370	455	415	White	518	543	561
Cohort Mean	467.5	485	517	Cohort Mean	485	562	536

* Single test date score. All other McNair scores are averages for two test dates.

RESULTS: IMPACT ON THE UNIVERSITY

The McNair program has had a significant, positive impact on the University. Key University offices and units that relate to graduate education, such as the Office of Graduate Admissions, the Financial Aid Office, and the Career Services Unit, have collaborated and cooperated on behalf of McNair participants. These University offices provide group workshops as well as individual consultations to program participants. Moreover, directors of University programs that serve low-income, first-generation-college, and traditionally underrepresented students are aware of the opportunities the McNair program provides and can alert academically talented students to them.

The McNair program has had a positive impact on University academic departments as well. To date, faculty who serve as mentors have had generally positive experiences with McNair participants. McNair mentors are among the most respected faculty in their departments, and their glowing praise for their McNair students and the program has sparked a high level of interest in mentoring McNair participants among other faculty.

PROBLEM: INSUFFICIENT GRADUATE SCHOOL FINANCIAL AID

American colleges and universities are in an era of tight money that threatens to become the norm and have a long-term negative effect on higher education. Many McNair graduates are fortunate enough to be admitted to graduate school and receive fellowships, but others lose out in the tight competition for limited fellowship funds, particularly at the university level. The competitive pressure for financial aid will continue to rise as the McNair programs nationwide enlarge the pool of students admitted to graduate education. McNair Scholars face tough competition for fellowships from second-generation-college, underrepresented students, and it is likely that, with each passing year, more and more McNair graduates will be unable to have their financial needs met through existing graduate education resources. The obvious answer to this problem is an expanded pool of federal dollars for McNair-type students that ensures them the funds they need for graduate school.

CONCLUSION

The Ronald E. McNair Postbaccalaureate Achievement Program was established to prepare and assist academically talented first generation college, low-income, and traditionally underrepresented minority students to enter graduate programs which lead to doctoral degrees. The Rutgers McNair model assumes that being academically talented is not enough to gain admission to and persist in doctoral level studies, so the program emphasizes intense preparation, over time, for graduate school. Undergraduate participants remain in the program for two years--from their sophomore year through graduation.

There are seven features of the Rutgers McNair program that are the keys to its success. They are:

1. A multi-year program cycle that is designed to nurture and stimulate personal growth over time,
2. Sequenced preparation for supervised research and other scholarly activity,
3. Structured, high quality mentoring and research internship supervision by dedicated Rutgers faculty,
4. High quality academic advisement and counseling,
5. Preparation for graduate school life and the "academic" culture,
6. Assistance and preparation for the graduate school admissions and financial aid process, and
7. Support and cooperation from key units of Rutgers University.

The Rutgers McNair program has been very successful. Twenty-four of the 26 McNair Scholars who completed the program and earned their baccalaureate degrees were admitted to graduate school and 23 of the 26 program graduates, or 88 percent, were enrolled in graduate school as of September, 1994. These are impressive outcomes by any standard and they were achieved through the combined efforts of the McNair Scholars, the McNair Program, and University staff and faculty. Perhaps the most important lesson learned is that much of the McNair Program's success is attributable to the high level of collaboration and cooperation among everyone involved in the program.

APPENDIX A
Mentor and Research Internship Assignments

MCNAIR PROGRAM 1992-93 RESEARCH INTERNSHIPS

1990-91 COHORT

MCNAIR FACULTY MENTOR/ DEPARTMENT

RESEARCH PROJECT TITLE

MCNAIR SCHOLAR

Roland Anglin
Political Science
Henry Rutgers Advisor

Race, Class, and Economic
Development: A Case Study of
Newark, New Jersey

Dudley Benoit

Jerome Aumente
Journalism Resources
Institute
Mabel Smith Douglass
Advisor

Research into Journalism Resources
Institute Projects in Europe;
Electronic Publishing and Urban
Affairs Media Coverage

Tracie Goode

Maurice Elias
Psychology
Henry Rutgers Advisor

The Improving Social Awareness-Social
Problem Solving (ISA-SPS) Project:
School-Based Services and Research
to Promote Positive Social Decision
Making and Prevent Substance Abuse
and Related Difficulties

Carmen Dickerson
Claudia Paolini

Charles Flaherty
Psychology
Henry Rutgers Advisor

Radial-Arm Maze Complexity and
Duration of Negative Contrast

Edison Perdomo

Charles Flaherty
Psychology

Factors Influencing Successive
Negative Contrast Effects

Edward Wingren

Eileen Kowler
Psychology

Limits of Spacial Attention Involving
a Cue

Edward Wingren

Larry Katz
Animal Science
Mabel Smith Douglass
Advisor

Role of Progesterone Priming in the
Induction of Sexual Behavior in
Female Goats During the Non-Breeding
Season

Cassandra Nunez

Lewis Hirsch
Mathematics

Frank Pearson
Sociology

Pedro Caban
Puerto Rican Studies

Ikechukwu Ukeje
University of
Medicine and Dentistry
of New Jersey

George Atwood
Psychology
Henry Rutgers Advisor

Lloyd Gardner
History
Henry Rutgers Advisor

David Oshinsky
History
Henry Rutgers Advisor

Analysis of Nonstandard Items on the
New Jersey Basic Skills Test

Perceived and Actual Risks of
School-Related Victimization

A Comparative Analysis Of Cuba
Post 1959 to the Present

Cisco A. Carter Minority Gifted
Project

The Psychology of Manic-Depression:
A Subjective Approach

Walt Rostow, McGeorge Bundy, Robert
McNamara, Vietnam, and the Transition
of 1963

Blacks in Asbury Park, New Jersey:
A Brief Social History

Tamara Gray

Indhira De La Paz

Giselle Hernandez

Gabriel Longhi

Gabriel Longhi

Christopher Fisher

Clive Davis

1991-92 COHORT

MCNAIR
FACULTY MENTOR/
DEPARTMENT

RESEARCH PROJECT TITLE

MCNAIR SCHOLAR

Susan Lawrence
Political Science

Democracy and the Judicial Role

Manuel Salazar

Jennifer Mandelbaum
Communication

Exploration of Relational Messages
in Romantic Relationships

Tiffany Simon

Valerie Manusov
Communication

From Attributions to Accounts:
The Changing Nature of Sense-Making
[Similarity Moves in Initial Interaction]

Tiffany Simon

Lesley Morrow
Education

The Differences in Characteristics
of Child and Teacher Behavior in
Cooperative School Periods

Yvette Cupid

Ann O'Leary
Psychology

Project LIGHT [Living in Good Health
Together]

Haydee Perez

Max Pfeffer
Human Ecology

Agriculture and Development Planning
on the Rural/Urban Fringe

Angeline Perla

Edmund Stiles
Biological Sciences

Differential Lipid Metabolism in
Migratory Frugivorous Songbirds

Angeline Perla

Michael Sukhdeo
Animal Science

Parasite Habitat Selection: Behavior
in a Predictable Environment
[Heligmosomoides Polygypus: Behavior
Adaptations During the Infection
Period]

Alexander Hernandez

Ikechukwu Ukeje
University of
Medicine and Dentistry
of New Jersey

Cognitive Enrichment Intervention
Project for Gifted, Minority Preschool
and Kindergarten Children

Merry McVey

Arlene Walker-Andrews
Psychology

Richard Williams
Sociology

Wesley Brown
English

William Firestone
Education

Consequential Reasoning in Pretend
Play

Public Perceptions of the Jury
Selection Process

The Signifying Monkey and the Use
of Satire Among African Peoples and
Subcultures

Coping with the First Year: A
Qualitative Study of Beginning
Teachers

Monica Comas
Wendy Tineo

David McKnight

Adetumininu Oguntala

Sandra Richards

MCNAIR PROGRAM 1993-94 RESEARCH INTERNSHIPS

1991-92 COHORT

MCNAIR FACULTY MENTOR/ DEPARTMENT

RESEARCH PROJECT TITLE

MCNAIR SCHOLAR

Wesley Brown
English

The Signifying Monkey and the Use of
Satire Among Peoples and Subcultures

Tumi Oguntala

Susan Lawrence
Political Science

Democracy and the Judicial Role

Manuel Salazar

Jennifer Mandelbaum
Communication
Mabel Smith Douglass
Advisor

Exploration of Relational Messages in
Male-Female Dyads: Similarity Moves
in Initial Interaction and Romantic
Relationships

Tiffany Simon

Lesley Morrow
Graduate School of
Education
Henry Rutgers
Advisor

Topic 1: Independent Writing and
Reading Appreciation Programs:
The Differences in Character-
istics of Child and Teacher
Behavior in Cooperative Social
Periods of Independent Reading
and Writing (Summer 1993)

Yvette Cupid

Topic 2: Writing and Reading Appreciation
Periods: A Comparative Study of
First, Second, and Third Grade
(Summer 1993 - Spring, 1994)

Ann O'Leary
Psychology

Project LIGHT: The New Jersey AIDS Project
(Living in Good Health Together): An
Overall Status of Hispanic Participants

Haydee Perez

Edmund Stiles
Biological Sciences

Differential Lipid Metabolism in Migratory
Frugivorous Songbirds

Angeline Perla

Michael Sukhdeo
Biological Sciences
Paul Robeson Honors
Advisor

Ikechukwu Ukeje
University of
Medicine and
Dentistry of NJ

Arlene Walker-Andrews
Psychology
Henry Rutgers
Advisor

Arlene Walker-Andrews
Psychology
Henry Rutgers
Advisor

Host Grooming Behavior and Transmission
of *Heligmosomoides Polygyrus*

Topic 1: Cognitive Enrichment Intervention
for Gifted Minority Pre-School
and Kindergarten Children
(Fall 1992 - Summer 1993)

Topic 2: The Predictability of Anger in
Toddlerhood
(Fall 1993 - Spring, 1994)

Topic 1: An Alternative Explanation to
Leslie's "Decoupler"
Fall 1992 - Summer 1993)

Topic 2: Causal Pretend Sequences in
15-18 Month Olds (Consequential
Reasoning in Pretend Play)
(Summer 1993)

Topic 3: Manifestation of Pretense in
Children With Autism
(Fall 1993 - Spring, 1994)

Topic 1: An Alternative Explanation to
Leslie's "Decoupler"
(Fall 1992 - Summer 1993)

Topic 2: Causal Pretend Sequences in
15-8 Month Olds (Consequential
Reasoning in Pretend Play)
(Summer 1993)

Topic 3: The Interplay Between False
Beliefs and Scripts: The
Development of a Pretend Play
Measure (Fall 1993 - Spring, 1994)

Alexander Hernandez

Merry McVey

Monica Comas

Wendy Tineo

Richard Williams
Sociology

William Firestone
Graduate School of
Education

Kathryn Edin
Sociology

Public Perceptions of the Jury Selection
Process

Coping in the First Year: A Study
of Beginning Teachers (Summer 1993)

Home Is Where the Heart Is: A Study of
How Welfare Mothers Make Their Housing
Choices and Survive the Urban Housing
Dilemma (Fall 1993 - Spring, 1994)

David McKnight

Sandra Richards

Sandra Richards

1992-93 COHORT

MCNAIR FACULTY MENTOR/ DEPARTMENT

RESEARCH PROJECT TITLE

MCNAIR SCHOLAR

John Aiello
Psychology

The Effect of Feedback Sign to Determine
the Impact of Feedback on Mood Test
Satisfaction and Performance

Maria Marcum

Miguel Algarin
Puerto Rican Studies

An Intellectual Discourse Toward the
Creative Writing Process

Joann Quinones

Leonard Bethel
Africana Studies

Black Philosophy: Its Notion and
Possibility

Roger Marsh

Abena Busia
English

An Analysis of Three Contemporary
African Artists

Lisa Ortiz

Susan Carroll
Eagleton Institute
of Politics

Women in Congress and Their Effects on
Public Policy: Women's Health

Audrey Geigel

Maurice Elias
Psychology

The Improving Social Awareness-Social
Problem Solving Project

Stephanie Rehbein
Cherisse Wells

Jennifer Mandelbaum
Communication

Exploration of Relational Messages in
Male-Female Dyads

Olga Pavez

Jose Morales
Puerto Rican Studies

The Afro-Indian Communities of Ecuador:
A Historical Perspective

John Salazar

Madara Ogot
Mechanical and
Aerospace
Engineering

Computer Simulation and Analysis of
the Forces and Stresses Which Exist in
the Design and Fabrication of Robotic
Limbs

Illya Gerdes

Ikechukwu Ukeje
University of
Medicine and
Dentistry of NJ

Cognitive Enrichment Intervention for
Gifted Minority Pre-School and
Kindergarten Children

Tania Slade

Ann O'Leary
Psychology

George Atwood
Psychology

Susan Carroll
Eagleton Institute
of Politics

William Owens
Assistant Vice-
President of
Communications

Gerald Davis
Africana Studies

Kim Butler
Africana Studies

Project Light: The New Jersey Aids Project
(Living in Good Health Together): An
Overall Status of Hispanic Participants
(Fall 1993)

Literature Review of Selected Abnormal
Psychology Topics (Spring 1994)

Women in Congress and Their Effect on
Public Policy (Fall 1993)

Public Relations Internship with the
University Communications Office
(Spring 1994)

A Study of Zora Neale Hurston
(Fall 1993)

The Francophone Arc Between West Africa,
The Caribbean, and the Americas
(Spring 1994)

Maria Kantziliery

Maria Kantziliery

Marjorie Mendez-Luna

Marjorie Mendez-Luna

Jerome Wright

Jerome Wright